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10/804,790

03/19/2004

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81707 [PW040003-US]

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EXAMINER

TRUONG, CAMQUY

ART UNIT

PAPER NUMBER

2195

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/804,790	<b>Applicant(s)</b> OKA, MASA AKI	
	<b>Examiner</b> CAMQUY TRUONG	<b>Art Unit</b> 2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-16 are presented for examination.
2. The finality of the office action given on 8/5/2009 is withdrawn. However, the following final rejection is given based on the newly found references and the amendment filed on 4/21/2009.

### **Claim Rejections - 35 USC § 112**

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- A. The claim language in the following claim is not clearly understood:

- i. As to claim 1, line 7, it is not clearly defined what "metric information" is (i.e. capability or workload). For examination purpose, Examiner interpret metric information is any type of information. Lines 11-12, it is not clearly indicated who sent "information processing request" (i.e. first or other information processing device?); Lines 13-16, it is not clearly indicated how the comparing step is performed so that to determine the available device and base on what standard

(i.e. it's load is less than it's capability or the actual magnitude of the load measured less than the metric information).

ii. As to claim 11, line 5, it is not clearly defined what "metric information" is (i.e. capability or workload). For examination purpose, Examiner interpret metric information is any type of information; Lines 8-9, it is not clearly indicated who sent "information processing request" (i.e. first or other information processing device?); Lines 10-14, it is unclearly indicated how the comparing step is performed so that to determine the available device and base on what standard (i.e. it's load is less than it's capability or the actual magnitude of the load measured less than the metric information).

lii. As to claim 14, line 2, it is not clearly defined what "processing metric" is (i.e. capability or workload). For examination purpose, Examiner interpret metric information is any type of information; Lines 7-8, it is not clearly indicated who sent "processing request" (i.e. client or one of the plurality of the information processing device?); Lines 9-12, it is not clearly indicated whether " request" refers to " processing request" in lines 7-8; Lines 13-16, it is unclearly indicated how the comparing step is performed so that to determine the available device and base on what standard (i.e. it's load is less than it's capability or the actual magnitude of the load measured less than the metric information).

iv. As to claim 15, lines 4-7, it is not clearly indicated what "processing metric" is (i.e. capability or workload). For examination purpose, Examiner interpret metric information is any type of information; Lines 7-8, it is not clearly

indicated who sent “certain request” (i.e. client or one of the plurality of the other information processing device?).

v. As to claim 9, line 3, it is not clearly indicated whether plurality of information processing devices is partitioned into a plurality of clusters or program execution is partitioned into a plurality of clusters (i.e. execute the program to partition the plurality of processing devices into the plurality clusters).

vi. As to claim 12, lines 3-8, it is not clearly indicated whether “another information processing device” refers to “a plurality of clusters”.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1, 9-10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Romero (U.S. 2002/0069279) in view of Lutterschmidt (U.S. 6,356, 947).**

5. As to claim 1, Romero teaches the invention substantially as claimed including information processing system comprising:

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a plurality of information processing devices (servers 121-123, paragraph 21) each comprising program execution (device that manage resource such as a file server, network server, paragraph 30);

load measurement means for measuring an magnitude of an load of information processing requested (measures the packet rate, paragraph 5 / the requested level of service associated with the transaction is a scale (measuring) value of 50, paragraph 10/ the requested level of service can be specific parameter such as processing speed or processing capacity, and can be a relative ranking such as a number on a scale (measuring) of one to ten, paragraph 23; paragraph 28. In order to have the scale value, the value has to be measured. Thus, the requested level of service is measured);

determination means for determining at least one available device by comparing the magnitude of the load measured by the load measurement means and the metric information stored in said metric information management means, said at least one available device being capable of executing a part or whole of said information processing request (service tag indicates a requested level of service having a scale of 50, the server index 400 indicates that server 312 (server B) is providing a corresponding service level 420 having a scaled value of 51, load balancer 300 direct the transaction to server B, paragraphs 26 and 28);

task assignment means for assigning a task corresponding to a part or whole of the information processing requested to the at least available device determined by said determination means (the load balancer 300 directs the transaction 200 to server C, paragraphs 10 and 28).

6. Romero does not at least a first information processing device of the plurality of the information processing devices further comprising: metric information management means for storing metric information in an updatable manner, said metric information representing processing metric of a part or whole of other information processing devices excluding the information processing device itself. However, Lutterschmidt teaches at least a first information processing device of the plurality of the information processing devices (the central server node AS 52, col. 5, lines 19-20) further comprising: metric information management means for storing metric information in an updatable manner ( the storage unit SDC are continuously updated, col. 5, lines 28-32), said metric information representing processing metric of a part or whole of other information processing devices excluding the information processing device itself ( the storage unit SDC of the central server node AS 52 store the status data on the data server node SS1 and the corresponding status data on the other data server nodes SS2 to SS4, col. 5, lines 22-27)

7. It would have been obvious to one of ordinary skill in the art at the modify the teaching of Romero by incorporating the teaching of first information processing device of the plurality of the information processing devices further comprising: metric information management means for storing metric information in an updatable manner, said metric information representing processing metric of a part or whole of other information processing devices excluding the information processing device itself as

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taught by Lutterschmidt because this allow the central server to monitor the data server nodes obtain data and dynamic assignment of client nodes to those data servers.

8. As to claim 9, Romero teaches at least one of said plurality of information processing devices is configured so that: said program execution means is partitioned into a plurality of clusters and an operating status of each cluster is provided to other information processing devices (paragraphs 30-32).

9. As to claim 10, Romero teaches at least one of plurality of information processing devices notifies said other information processing devices of the number of available cluster to be used by the other information processing device as said operating status (paragraph 21).

10. As to claim 16, it is rejected for the same reason as claim1.

**11. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Romero (U.S. 2002/0069279) in view of Lutterschmidt (U.S. 6,356, 947) and further in view Doyle (U.S. 6,009,455).**

12. As to claims 11, 14-15, Romero teaches the invention substantially as claimed including information processing system comprising:



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a plurality of information processing devices (servers 121-123, paragraph 21) each comprising program execution (device that manage resource such as a file server, network server, paragraph 30);

load measurement means for measuring an magnitude of an load of information processing requested (measures the packet rate, paragraph 5 / the requested level of service associated with the transaction is a scale (measuring) value of 50, paragraph 10/ the requested level of service can be specific parameter such as processing speed or processing capacity, and can be a relative ranking such as a number on a scale (measuring) of one to ten, paragraph 23; paragraph 28. In order to have the scale value, the value has to be measured. Thus, the requested level of service is measured);

determination means for determining at least one available device by comparing the magnitude of the load measured by the load measurement means and the metric information stored in said metric information management means, said at least one available device being capable of executing a part or whole of said information processing request (service tag indicates a requested level of service having a scale of 50, the server index 400 indicates that server 312 (server B) is providing a corresponding service level 420 having a scaled value of 51, load balancer 300 direct the transaction to server B, paragraphs 26 and 28);

task assignment means for assigning a task corresponding to a part or whole of the information processing requested to the at least available device determined by said determination means (the load balancer 300 directs the transaction 200 to server C, paragraphs 10 and 28).

13. Romero does not at least a first information processing device of the plurality of the information processing devices further comprising: metric information management means for storing metric information in an updatable manner, said metric information representing processing metric of a part or whole of other information processing devices excluding the information processing device itself. However, Lutterschmidt teaches at least a first information processing device of the plurality of the information processing devices (the central server node AS 52, col. 5, lines 19-20) further comprising: metric information management means for storing metric information in an updatable manner ( the storage unit SDC are continuously updated, col. 5, lines 28-32), said metric information representing processing metric of a part or whole of other information processing devices excluding the information processing device itself ( the storage unit SDC of the central server node AS 52 store the status data on the data server node SS1 and the corresponding status data on the other data server nodes SS2 to SS4, col. 5, lines 22-27)

14. It would have been obvious to one of ordinary skill in the art at the modify the teaching of Romero by incorporating the teaching of first information processing device of the plurality of the information processing devices further comprising: metric information management means for storing metric information in an updatable manner, said metric information representing processing metric of a part or whole of other information processing devices excluding the information processing device itself as

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taught by Lutterschmidt because this allow the central server to monitor the data server nodes obtain data and dynamic assignment of client nodes to those data servers.

15. Romero and Lutterschmidt do not explicitly teaches output means for combining execution results and outputting the combined results from the respective clusters assigned by said task assignment means. However, Doyle teaches output means for combining execution results and outputting the combined results from the respective clusters assigned by said task assignment means (the result generated for each segment are combined by the application-specific job output, col. 3, lines 17-24).

16. It would have been obvious to one of ordinary skill in the art at the modify the teaching of Romero and Lutterschmidt by incorporating the teaching of program execution means is partitioned into a plurality of clusters; and output means for combining execution results and outputting the combined results from the respective clusters assigned by said task assignment means as taught by Doyle because this allows the combined result is output for storage or display for further use.

17. As to claim 12, Doyle teaches processing request execution means for executing required information processing corresponding to a processing request issued by another information processing device, and returning the execution result thereof, together with a transmission start time to said another information processing device (col. 12, lines 35-50); and

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Lutterschmidt teaches notification means for notifying the metric information stored in said metric information management means to other information processing devices (col. 4, lines 59-64).

18. As to claim 13, Romero teaches each of said plurality of clusters further comprises a processor (server, paragraph 30).

***Allowable Subject Matter***

19. Claims 2-8 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Response to the argument***

20. Applicant's arguments filed 4/21/2009 for claims 1-16 have been considered but are moot in view of the new ground(s) rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CAMQUY TRUONG whose telephone number is (571)272-3773. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng Ai An can be reached on (703)305-9678. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

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Customer Service Representative or access to the automated information system, call  
800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Meng-Ai An/  
Supervisory Patent Examiner, Art Unit 2195

Camquy Truong  
February 16, 2010